Život kuće /„Kuća za dvoje” Bogdana Budimirova kao poticaj za promišljanje nove arhitekture kao buduće graditeljske baštine

The Life of a House / New Architecture as Future Architectural Heritage: Bogdan Budimirov’s “House for Two”

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SAŽETAK
Koncept „kuće za dvoje" u Zagrebu arhitekta Bogdana Budimirova, projektirane za njega i suprugu te useljene 2014. — nakon gotovo pedeset godina planiranja „na papiru" da bi se nastavila projektirati „iznutra" — analizira se slijedom mijena koje su se dogodile u arhitekturi prelaskom iz modernizma u suvremenost. Cilj je ovog teksta doprinos promišljanju arhitekture u kontekstu suvremenog *posthumanizma,* na primjeru kontinuiranog života „kuće za dvoje" s čovjekom, tehnologijom i prirodom.

KLJUČNE RIJEČI
Atenske povelje, Budimirov, Bogdan, „kuća za dvoje", *pasivna* kuća, sistemski dizajn, polivalentnost arhitekture, posthumanizam

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ABSTRACT
This paper analyses the concept behind the "House for Two" in Zagreb, by the architect Bogdan Budimirov, which he designed for himself and his wife. The couple moved into the house in 2014, after a full fifty years of planning "on paper," and Budimirov continued adapting the building after he moved in. This article analyses the design of the house considering it in relation to developments in the field of architecture during a period that saw the change from modernism towards the contemporary. This text aims to contribute to the discussion on new architecture as future architectural heritage in the context of contemporary posthumanism, using the example of the ongoing life of the "House for Two," where humanity, technology, and nature co-exist.

KEYWORDS
The Charters of Athens, Budimirov, Bogdan, "House for Two," passive house, systemic design, polyvalent architecture, posthumanism

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UVOD

Polazeći od dviju Atenskih povelja, „konzervatorske" iz 1931. te „CIAM-ovske" iz 1933. godine, koje su presudno utjecale kako na međunarodnu konzervaciju tako i na arhitekturu i urbanizam 20. stoljeća, a istodobno označile ključni moment u distinkciji između razvoja i konzervacije izgrađenog svijeta, koja na tim zasadama traje do današnjih dana, u tekstu se raspravlja o novoj arhitekturi kao budućoj graditeljskoj baštini. Prikazuje se stoga ukratko razdvajanje koncepata „kuće" i „spomenika" te razvoj koncepta „kuće" od 1930-ih do danas, kada je ta ista vizionarska i revolucionarna arhitektura modernizma, koja je svojedobno proglasila prekid s poviješću, i sama postala arhitektonska baština, no funkcionalno i tehnološki nerijetko teško produljivoga životnog vijeka.[1] Koncept *pasivne,* odnosno ekstremno niskoenergetske, modularno projektirane i nezaključene „kuće za dvoje" arhitekta Bogdana Budimirova, projektirane za njega i njegovu suprugu i useljene 2014., nakon gotovo pedeset godina planiranja „na papiru", analizira se ovdje slijedom mijena koje su se dogodile u arhitekturi prelaskom iz modernizma u suvremenost, kao model koji u sebi nosi karakteristike bitne za kvalitetan budući život arhitektonskih djela.[2]

Kuća se nalazi na obiteljskom terenu na Perjavici, u podsljemenskoj zoni Zagreba, na livadi i voćnjaku punima samoniklog bilja, s mnoštvom životinja.[3] Projektirana je kao prostorna reakcija na unutrašnju—korisničku, kao i na vanjsku—okolišnu životnu dinamiku. Ubrzan tehnološki razvoj današnjice i njegove posljedice na način života i stabilnost ekosustava, kao i suočenje sa znatnom količinom teško adaptabilnoga graditeljskog naslijeđa 20. stoljeća, provociraju pitanja za arhitekte: kako arhitektura može biti angažirana u ekološkoj sferi, umjesto da egzistira kao statična geografska jedinica; i nadalje, kako projektiranjem možemo omogućiti arhitektonskoj formi da umjesto potencijalnog viška predstavlja dugotrajnu vezu između čovjeka, prirode i tehnologije, prilagodljivu mijenama koje donosi vrijeme.[4] Projekt „kuće za dvoje", koji se, kao *„work in progress"*, i dalje razvija neodvojivo od vlastite realizacije, inspirira odgovore na ova pitanja. Potaknuo me na razmišljanje o postupnom ujedinjenju koncepata „kuće" i „spomenika", odnosno o budućnosti arhitekture u kontekstu *posthumanizma*—kao teorijskog pristupa koji se kroz pokušaj redefiniranja uloge čovjeka u kontekstu tehnološkog i biološkog kontinuiteta života u današnjoj antropocentričnoj eri reflektira i na arhitektonsku disciplinu.[5]

1
O problematici zaštite baštine 20. stoljeća izdvajam: Carughi, Visone, *Time Frames: Conservation Policies for Twentieth-Century Architectural Heritage.*

2
Koncept pasivne kuće temelji se na procesu arhitektonskog projektiranja koji teži postizanju udobnosti življenja uz maksimalnu redukciju utroška energije i utjecaja na okoliš, a primjenjiv je kako na nove projekte tako i kod adaptacije postojećih građevina, vidi: *Passivhaus Institut; The International Passive House Association;* IBO, *Details for Passive Houses: Renovation: A Catalogue of Ecologically Rated Constructions for Renovation.*

3
„Kuća za dvoje" nalazi se na adresi Perjavica 78C.

4
Vidi: Harrison, „Charting Posthuman Territory", 24.
Na temu budućnosti arhitekture izdvajam: Hertzberger, *The Future of Architecture;* Hertzberger, *Transformation + Accomodation;* Leupen, Heijne, van Zwol, *Time-based architecture.*

5
Intenzivan utjecaj ljudskih aktivnosti na balans ekosustava s jedne strane, kao i civilizacijska ovisnost o tehnološkom razvoju s druge strane, utječu na široku raspravu o ideji i konceptu posthumanizma, kao potrazi za ravnotežom čovjeka s prirodom i tehnologijom. Pojam pokriva spektar kulturoloških i filozofskih pristupa, a za obuhvatan prikaz posthumanizma u kontekstu arhitektonske discipline vidi: Harrison, *Architectural Theories of the Environment.*

INTRODUCTION

This text considers the two Athens Charters, the "conservational" one from 1931 and "CIAM's" charter from 1933, which both had a significant impact on international conservational practices, as well as on the architecture and urbanism of the 20th century. At the same time, it also marked a key moment in the process of distinguishing between the development and the conservation of the built environment, an issue that remains current even today. These Charters are considered as the basis for a discussion of the new architecture and its place in the architectural heritage of the future. The article briefly considers the separation of the concepts "the house" and "the monument," and the development of the concept of "the house" from the 1930s to today, when that same visionary and revolutionary modernist architecture, which in its own day was heralded as a break with history, itself became a part of our architectural heritage, despite frequently having a short lifespan, in terms of both its function and its technology.[1]

The concept of a *passive,* extremely energy-efficient, modular, and incomplete "House for Two" designed by Bogdan Budimirov for himself and his wife, which they moved into in 2014 after fifty years of planning "on paper" is analysed in this article with reference to the sequence of changes that the field of architecture underwent in the transitionary period between modernism and the contemporary, considering it as a model with inherent characteristics that are important for ensuring a long and successful life for architectural works.[2]

The house was built on land belonging to the architect's family on Perjavica Street in Zagreb, in a hilly suburb situated at the foot of Mt Medvednica. The lot has a meadow and is populated by a variety of flora and fauna.[3] It is designed in response to the relationship between the interior uses of the space and the exterior, natural environment. Rapid technological development in the 21st century, and its impact on our way of life and the stability of our ecosystems, as well as the issue of the architectural heritage of the 20th century and its lack of adaptability, all create a number of questions for architects: how can a structure become more eco-friendly, instead of existing as an isolated geographical unit? Furthermore, how can we design structures that allow architectural forms to express a more lasting connection between nature, technology, and human beings, and which can be adapted to the changes that inevitably emerge over time?[4] The "House for Two" project, as a "work in progress" that even after its construction continues to be adapted and developed, offers us some answers to these questions. It inspired me to consider the gradual unification of the concepts of "house" and "monument" and the future of the new architecture in the context of posthumanism—a theoretical approach that, in attempting to redefine the roles of human beings in today's anthropocentric era, and the impact that technology and biology have on the continuity of life, also reflects on the field of architecture.[5]

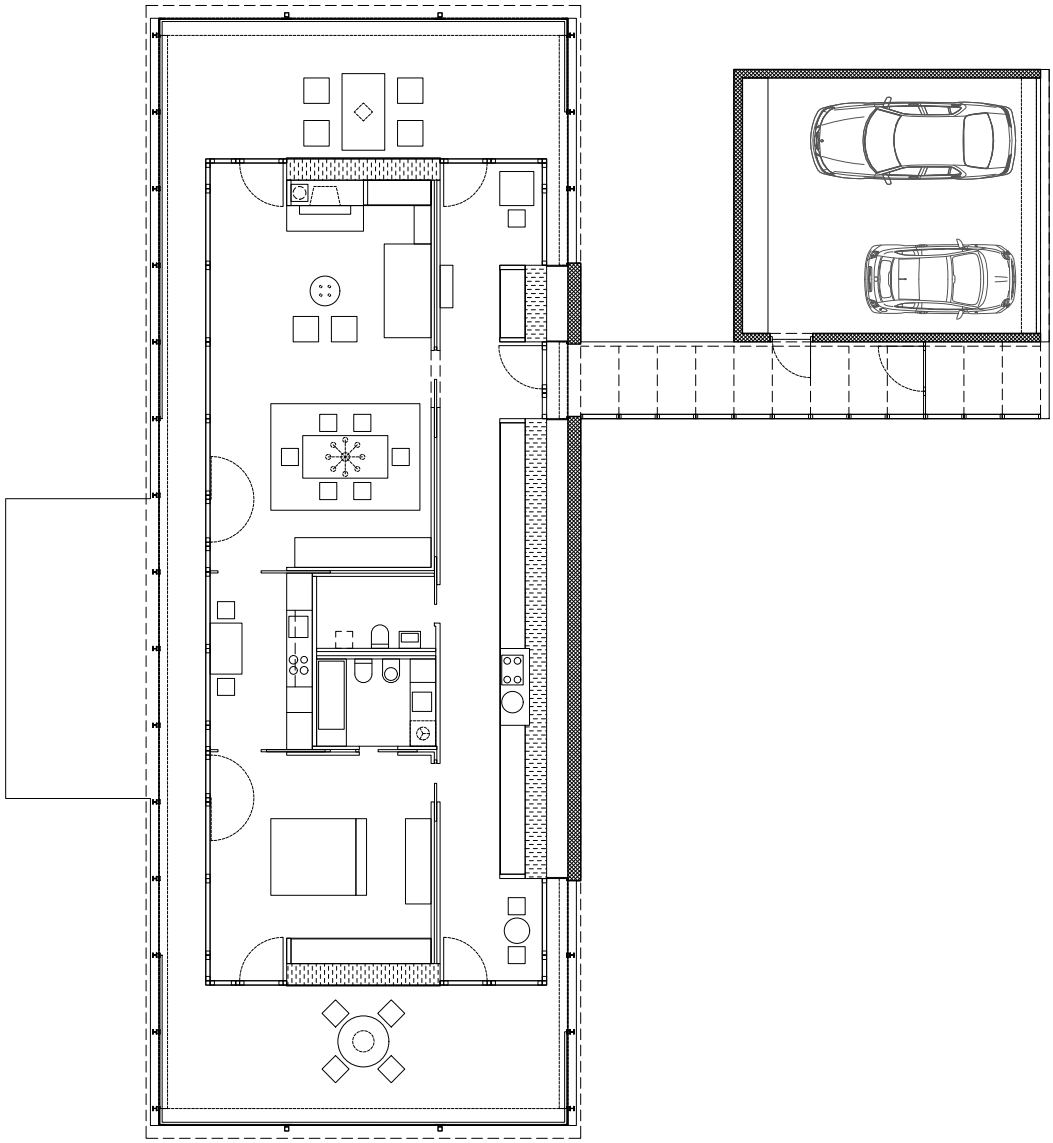
1
For a useful discussion of the issue of conserving heritage in the 20th century, please see: Carughi, Visone, *Time Frames: Conservation Policies for Twentieth-Century Architectural Heritage*.

2
The concept of the "passive house" is based upon the principle of designing comfortable living spaces that reduce energy use and environmental impact to the greatest extent possible, and it can be applied to both new projects as well as renovations. See: *Passivhaus Institut; The International Passive House Association;* IBO, *Details for Passive Houses: Renovation: A Catalogue of Ecologically Rated Constructions for Renovation*.

3
The "House for Two" is located at 78/c Perjavica Street.

4
See: Harrison, "Charting Posthuman Territory," 24. On the issue of the future of architecture, please see: Hertzberger, *The Future of Architecture;* Hertzberger, *Transformation + Accomodation;* Leupen, Heijne, van Zwol, *Time-based architecture*.

5
Intensive human activity and its impact on the balance of the ecosystem on the one hand, and civilisation's reliance on technological development on the other, reflect on the wider debate about the concept of posthumanism, one that tries to create a balance between human beings and both their natural environment and technology. This concept covers a range of cultural and philosophical approaches; for a detailed overview of posthumanism in the context of architecture, see: Harrison, *Architectural Theories of the Environment*.



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Bogdan Budimirov, „Kuća za dvoje", tlocrt, 2014. Izvor: arhiv časopisa *Oris*, 2017. /
Bogdan Budimirov, the "House for Two," floor plan, 2014. Courtesy of the *Oris* magazine's archive, 2017

„Kuća za dvoje", pogled s jugoistoka. Foto: Marko Mihaljević, 2018. /
The "House for Two," view from the south-east. Photo: Marko Mihaljević, 2018

→

DVIJE ATENSKE POVELJE ZA DVIJE DISCIPLINE

U zbirci eseja *Vers une architecture* (1923.) Le Corbusier je formirao koncept „stroja za stanovanje"—kuće pripadne duhu masovne proizvodnje, čija je ljepota upravo u davanju prostornog odgovora na ljudske životne potrebe uz maksimalnu redukciju količine projektantskog koda.[6] Time je ujedno najavio raskid s poviješću arhitekture kao dugačkim i polaganim procesom razvoja prostorne strukture i dekoracije u službi stila, iracionalno rastuće ponad one osnovne, instinktivne potrebe čovjeka—da osigura sigurnost i jednostavnost života u prirodi. Promatrajući povijesnu arhitekturu kao svojevrstan razvoj kulta koji je s vremenom izgubio odnos s ljepotom primarnih geometrijskih oblika i njihovom harmonijom pa stoga ne može odgovarati na funkcionalne i intelektualne potrebe suvremenog čovjeka, Le Corbusier u toj knjizi manifestnog karaktera podsjeća na početke arhitekture kao posrednice između čovjeka i prostora. Kao uzor iz povijesti ističe čistoću forme grčke antike. U analizi povijesne arhitekture jasno razlučuje strukturu i dekoraciju. Gotički tlocrt i presjek smatra tako veličanstvenima, a apliciranu dekoraciju poraznom.[7] Prostorno opredmećenje ljudskog instinkta temeljeno na izravnom odnosu s prirodom smatra esencijom arhitektonskog stvaralaštva. Ta bi ideja trebala predstavljati konstantu arhitekture, a njezina interpretacija biti usklađena s napretkom tehnologije. Ekspresivnosti zanatskih ornamenata, stranih masovnoj produkciji, Le Corbusier pretpostavlja izražajnost odnosa čistih i funkcionalnih oblika i materijala. Njihova je trajnost i reverzibilnost bila izvan fokusa arhitekata stasalih u doba nagle dominacije tehnološkog razvoja. Oni su takva pitanja ostavljali u drugom planu, problematizirajući četvrtu dimenziju iz sasvim drugog aspekta, dijelom zbog imperativa jedinstva funkcije i forme, a zasigurno dijelom i zato što je iz njihove perspektive budućnost suvremene arhitekture morala djelovati jednostavno rješivom uz pomoć „svemoguće" tehnologije.[8]

Promatrajući arhitekturu kao disciplinu koja svojim jezikom mora izražavati duh vremena, što za projektante znači da bi trebali prije svega razumjeti svoju epohu, Le Corbusier postavlja pred arhitekte zadatak harmoniziranja kuća i gradova s onodobnim revolucionarnim promjenama tehnoloških i ekonomskih prilika kao uvjetom harmonizacije i samog društva, s kojim je arhitektura neraskidivo vezana.[9] Pitanje novog koncepta stanovanja i organizacije gradova uvodi se u široku raspravu na Međunarodnim kongresima moderne arhitekture (CIAM), što je kulminiralo Atenskom poveljom, dokumentom koji je izvršio zasigurno najveći utjecaj na arhitekturu i urbanizam 20. stoljeća, koju je Le Corbusier temeljito obradio i objavio 1943., deset godina nakon zasjedanja na kojemu je u osnovi formulirana.[10] Atenska povelja nastala je kao rezultat 4. CIAM-a s temom „funkcionalni grad", fokusiranog na urbanizam i važnost planiranja urbanog razvoja gradova. Kongres je održan 1933. godine, a koincidencija da je i jedan od ključnih međunarodnih dokumenata konzervatorske discipline (prihvaćen na Prvom međunarodnom kongresu arhitekata i inženjera zaduženih za povijesne spomenike u Ateni

TWO DIFFERENT ATHENS CHARTERS FOR TWO DIFFERENT DISCIPLINES

In his collection of essays entitled *Vers une architecture* (1923), Le Corbusier developed the concept of a "machine for living in"—a house that has links to the notion of mass production, whose beauty lies in offering a spatial solution for humans' living needs, alongside the greatest possible reduction of architectural codes.[6] In doing so, Le Corbusier declared a break with the history of architecture, which up until then had been a long and gradual process of developing spatial structures and decorations in the interests of style, with style irrationally raised up above the basic, instinctive needs of human beings—the need for a space that will ensure the safely and simplicity of life in the midst of nature. Le Corbusier considered the architecture of the past to have been a kind of cult that over the course of time lost its relationship to the beauty of basic geometric shapes and their harmony, and consequently could not offer solutions to the functional and intellectual needs of contemporary human beings. In his book, a kind of manifesto, he reminded his readers of architecture's original role as a mediator between man and space. He cited the clean lines of ancient Greek forms as an example. In analysing the history of architecture, he made a clear distinction between structure and decoration. He considered the floor plans and cross-sections of Gothic structures to be magnificent, but declared the decorations to be disastrous additions.[7] The spatial expression of human beings' direct relationship with nature was, for Le Corbusier, the essence of architectural creation. This idea should be the core of architecture, and its interpretation should be aligned with developments in technology. The expressivity of individually-crafted ornaments, foreign to the concept of mass production, Le Corbusier presupposes to be an expression of the relationship between clean and functional shapes and materials.

6
Le Corbusier, *Vers une architecture.*
7
Isto, 19. Vidi i: Vaisse, „Le Corbusier and the Gothic", 45–53.
8
O konceptu „prostorvrijeme" u razdoblju modernizma vidi: Giedion, *Space, Time and Architecture.*
9
Le Corbusier, *Vers une architecture,* 124.
10
Međunarodni kongresi moderne arhitekture održavali su se od 1928. do 1959. kao najutjecajniji međunarodni forum posvećen pitanjima arhitekture i urbanizma. Za precizni historijat CIAM-a i tema pojedinih kongresa vidi: Mumford, *The CIAM Discourse on Urbanism, 1928–1960.* Za ovu temu fokusiramo se na aspekt tretmana povijesne arhitekture u Povelji.
11
Vidi: Grinceri, *Architecture as Cultural and Political Discourse;* Iamandi, „The Charters of Athens of 1931 and 1933", 17–28; Davoudi, Madanipour, „Two Charters of Athens and Two Visions of Utopia", 459–468.
12
The Athens Charter for the Restoration of Historic Monuments.
13
Bandarin, van Oers, *The Historic Urban Landscape,* 22.

1931.) poznat pod istim imenom dodatno naglašava dihotomiju koja se u tom periodu dogodila između razvoja i konzervacije u arhitekturi.[11]

Dok je Atenska povelja posvećena konzervaciji uslijedila kao logična potreba za formiranjem i institucionalizacijom načela očuvanja graditeljske baštine na međunarodnoj razini nakon razaranja u Prvome svjetskom ratu, ona CIAM-ovska je pak, analizirajući je za ovu priliku iz rakursa kontinuiteta arhitektonskog stvaralaštva, utjecala na radikalan prekid s graditeljskom poviješću, a primjenu je doživjela kroz urbanu ekspanziju nakon Drugoga svjetskog rata. Nastala u grupi avangardnih intelektualaca, u kontekstu povjerenja u ulogu arhitekata, planera i inženjera, kao i u dostignuća suvremene tehnologije u transformiranju nabujalih i kaotičnih gradova u bolja mjesta za život, sadržavala je i stav prema graditeljskoj baštini, u čiji su okvir bile uključene i urbane cjeline. Istaknula je duhovne, kulturne i ekonomske vrijednosti arhitektonske baštine koje čine njezino održavanje od javnog interesa, naglašavajući pritom da očuvanje baštine ne podrazumijeva život u nezdravim uvjetima, kao i da se neupitno ne toleriraju imitacije prošlih stilova kod gradnje novih konstrukcija u povijesnim zonama. S druge pak strane, konzervatorska Atenska povelja koncentrirana je na formiranje međunarodnog sustava zaštite spomenika. Pretpostavila je konzervaciju i održavanje restauraciji, ne isključujući upotrebu novih materijala kod zahvata obnove.[12] S obzirom na to da ju je inicirala skupina arhitekata, arheologa i konzervatora, predstavljala je sukus stoljetne rasprave i razvoja konzervatorske misli. Na njoj je začet koncept urbane baštine, težnja za integracijom graditeljske baštine u urbanističko planiranje i zaštita namjene povijesnih građevina. Premda je njezine zaključke prihvatila Liga naroda 1932. godine, njezin je značaj postao uistinu evidentan nakon Drugoga svjetskog rata, prihvaćanjem Venecijanske povelje iz 1964. godine, i rastom međunarodnoga konzervatorskog pokreta pod okriljem UNESCO-a.[13]

Their durability and reversibility were outside the focus of architects who developed in an era when technological development came, in a very short period, to dominate. They considered such questions to be of little importance, problematising instead the fourth dimension from a very different angle, as being part of the demand for unity of function and form, and certainly, to some extent, because from their perspective the future of contemporary architecture lay in developing simple solutions thanks to "all-powerful" new technologies.[8]

Le Corbusier considered architecture to be a discipline that must express the spirit of the time using its own language, which in terms of designing buildings means that architects must first understand the epoch in which they are living. These ideas led him to present architects with the task of harmonising houses and cities with the revolutionary changes in technology and the economy that occurred during that era, as an essential part of harmonising society itself, with which architecture is inseparably linked.[9] The issue of a new concept of living and organising cities led to a broad debate at the International Congresses of Modern Architecture (CIAM), which culminated in the Athens Charter, a document which had by far the greatest impact on the architecture and urbanism of the 20th century, and which Le Corbusier worked on in detail, and published in 1943, ten years after the congress at which it was originally formulated.[10] The Athens Charter was the end-result of the 4th CIAM congress, focusing on the theme of the "functional city:" on urbanism and the importance of planning for the urban development of cities. The congress was held in 1933, and coincidentally, a key international document in the field of conservation (adopted at the First International Congress of Architects and Technicians of Historic Monuments in Athens in 1931) is known by the same name. This coincidence places an additional emphasis on the dichotomy that developed in this period between development and conservation in architecture.[11]

While the Athens Charter that focused on conservation emerged in response to the logical need to formulate and institutionalise the methods of architectural conservation on an international level after the destruction of the First World War, CIAM's Charter, in analysing architectural heritage from the perspective of the continuity of architectural creation, had an impact on the radical break with architectural history, and its principles were applied in practice through the urban expansion that followed the Second World War. It developed thanks to avant-garde intellectuals who believed in the role played by architects, planners, and engineers, as well as contemporary technology, in the process of transforming rapidly-expanding and chaotic cities into better places to live. It also included an approach to architectural heritage, the definition of which included urban areas as well as individual structures. It emphasised the spiritual, cultural, and economic values of architectural heritage, including its public interest, and in doing so highlighted the fact that preserving architectural heritage

6
Le Corbusier, *Vers une architecture*.
7
Ibid, 19. See also: Vaisse, "Le Corbusier and the Gothic," 45–53.
8
For a discussion of the concept of "space and time" in the modernist period see: Giedion, *Space, Time and Architecture*.
9
Le Corbusier, *Vers une architecture,* 124.
10
These international congresses of modern architecture were held from 1928 to 1959, and were the most influential international forums dedicated to questions in the fields of architecture and urbanism. For a detailed history of CIAM and the themes of the individual conferences see: Mumford, *The CIAM Discourse on Urbanism, 1928–1960*. In this article we will focus on the theme of the treatment of historical architecture in the Charter.
11
See: Grinceri, *Architecture as Cultural and Political Discourse;* Iamandi, "The Charters of Athens of 1931 and 1933," 17–28; Davoudi, Madanipour, "Two Charters of Athens and Two Visions of Utopia," 459–468.

Obje ove kontrastne ideologije pokrenule su, svaka na svoj način, internacionalizaciju debate o vrijednostima i načinu očuvanja spomenika graditeljske baštine.[14] Dok je CIAM-ovska prihvatila očuvanje povijesnih građevina, ali kao svjedoka povijesti i kulture prošloga svršenog vremena oko kojih se razvija novi sustav arhitektonskih formi, konzervatorska je Povelja težila ne samo produljenju životnog vijeka spomenika nego i podređivanju konteksta isticanju njihove uloge u urbanom sustavu. Za raspravu o dijalektici koncepata „kuće" i „spomenika" dvije su Atenske povelje bitne jer su označile ključni trenutak u poimanju arhitekture i konzervacije kao dviju zasebnih disciplina, svake s težnjom ka vlastitom sustavu mjera i ciljeva. Tako su, na neki način, upravo jedna drugoj omogućile autonomiju polja djelovanja i nastavile se razvijati odvojeno.[15] Koncept kuće kao „stroja za stanovanje" mogao se u tom svjetlu razvijati neopterećen ikakvim imperativom postojeće forme i buduće funkcije, odnosno posve neovisno od koncepta spomenika. Kako tumači arhitekt Eero Saarinen, eksponent tzv. „druge generacije modernista", izrazito kontekstualan u pristupu projektiranju, arhitekti su do kasnih 1950-ih godina postali procesori informacija, a arhitektonski objekti dio informacijskog tijeka. Mnoštvo informacija dovelo je do znatnog broja raspoloživih opcija oblikovanja građevina. Forma više nije bila ultimativna strukturalna ni funkcionalna solucija, već primarno izbor arhitekta.[16] Kuća tako postupno postaje, kako je to sugestivno formulirala arhitektica Blanca Lleó, svojevrsni interaktivni „stroj za procesuiranje".[17]

Upravo 1950-ih godina arhitekt Bogdan Budimirov započeo je u Zagrebu, u kontekstu urbanizacije i industrijalizacije poslijeratne socijalističke Jugoslavije, s praksom sistemskog dizajna i prefabrikacije, odakle u drugoj polovici 1960-ih odlazi u München. U Njemačkoj djeluje više od dvadeset godina na širokom polju sistemskog dizajna u visokorazvijenim tehnološkim okolnostima, do povratka u Zagreb 1988. godine.[18] Krajem 1960-ih započinje projektiranje zagrebačke stambene kuće na Perjavici, u koju će se useliti pedesetak godina kasnije, kao još nedovršenu, i dovršavati je iznutra. Temeljena je na interakciji s prirodnim okolišem i životnim navikama korisnika posredstvom autorske interpretacije trajnih materijala, energetski učinkovite tehnologije gradnje i tlocrtnog modela otvorenog za individualne interpretacije. „Kuća za dvoje" zato je mjesto podatno za nove događaje pa bi mogla trajati u kontinuiranoj mijeni i nikada ne postati spomenik u klasičnom smislu.

„KUĆA ZA DVOJE" BOGDANA BUDIMIROVA KAO VODILJA ZA RAZMIŠLJANJE O RAZVOJU KONCEPTA KUĆE OD „STROJA ZA STANOVANJE" DO INTERAKTIVNOG DIJAGRAMA

„Program se korigirao kako smo se mi s godinama mijenjali. Kuća nije mišljena samo kao zatvoreni program, već spoj kuće sa svime onime što se događa na tom zemljištu", kazao je Bogdan Budimirov o kući koju je projektirao za sebe i svoju suprugu, koja je u tom procesu, nasuprot arhitektu, preuzela ulogu naručitelja.[19] Smještaj kuće na parceli uvjetovan je minimalnom intervencijom naspram postojećega biljnog fonda.

does not presuppose living in unhealthy conditions. The Charter also expressed a firm disapproval for the imitation of past styles when constructing new buildings in historical zones. On the other hand, the conservational Athens Charter is focused on creating an international system for the conservation of monuments. It left the task of conserving and maintaining monuments to the field of restoration, and did not rule out the possibility of using new materials to meet the demands of restoration.[12] Put in motion by a group of architects, archaeologists, and conservators, it represented the culmination of a century-long debate about conservation. It sowed the seeds of concepts such as urban heritage, the integration of architectural heritage and urban planning, and the protection of historical sites and the use for which they were originally created. The League of Nations adopted the measures in 1932, but its true influence was felt only after the Second World War, when the Venice Charter was drawn up in 1964, and with the growth of the international conservational movement overseen by UNESCO.[13]

14
Iamandi, „The Charters of Athens of 1931 and 1933", 17–28.
15
Recentno se u teoriju konzervacije uvodi koncept povijesnoga urbanog krajolika i naglašava potreba za analizom međudjelovanja novoga urbanog razvoja i graditeljske baštine te za kontekstualizacijom spomenika u širem urbanom okruženju. Vidi: Bandarin, van Oers, *The Historic Urban Landscape*. Vidi bilješku 52.
16
Pelkonen, „The search for (communicative) form", 86.
17
Prema: Gausa, „House as a box", 61.
18
Bogdan Budimirov, rođen 1928. godine u Izbištu (Banat), upisao je zagrebački Arhitektonski fakultet 1948. godine te tijekom studija bio demonstrator kod prof. Strižića, Galića i Kauzlarića. Počinje raditi već 1949. u građevinskim poduzećima ondašnje Jugoslavije, a 1966. odlazi u Njemačku. Bavio se zadacima u rasponu od tehnologije prefabrikacije do dizajna namještaja i ambalaže. U svojem djelovanju ističe grupni rad i stvaranje kompleksnog proizvoda paralelno razvijajući njegovu funkciju, konstrukciju, tehnologiju izvedbe i formu. Kroz grupni rad kreirao je montažne sustave YU-60, YU-61, Spačva, Marles, SPIG, montažni sustav za izgradnju velesajma u Nürenbergu, putničke zgrade aerodroma München II te čelični sustav za partijsku centralu SPD-a u Bonnu. Vidi opširnije: Budimirov, *U prvom licu,* 221–222.
19
Budimirov, „Arhitekti ljudima određuju život".
20
Budimirov, *U prvom licu,* 202–215.
21
Passivhaus Institut.
22
Pinterić, *Building Physics*. Na upućivanju na ovu knjigu i dodatnim pojašnjenjima o energetskoj učinkovitosti kuće zahvaljujem fizičaru dr. sc. Jadranku Gladiću.
23
Na parceli su zatečene velike količine radioaktivnog plina radona, koji je teži od zraka pa ga nije moguće ventilirati, već je njegovo otjecanje izvan gabarita kuće riješeno prorezima u podnoj konstrukciji, vidi: Budimirov, „Arhitekti ljudima određuju život".
24
Kuća je energetskog razreda A+ te godišnje treba svega 5 kWh/m² toplinske energije, vidi: Prpić, „Kuća za dvoje", 162–175.

Projektirana je u modulu od 120 centimetara u nizu varijanti kroz pedesetak godina. Lokacija se nije mijenjala, kao ni korisnici—njih dvoje. Sljedeće su konstante u projektu željena jednoetažnost, s obzirom na to da kuća mora omogućiti lakoću kretanja u poznijim godinama, i snažna povezanost s terenom.[20] Ta je povezanost potaknula najprije ideju korištenja zemljinom energijom za predgrijavanje zraka, da bi daljnjim razmišljanjem na tom tragu dovela projektanta do pasivne kuće, odnosno konstrukcije koja je istodobno energetski učinkovita, udobna, ekonomična i ekološka.[21]

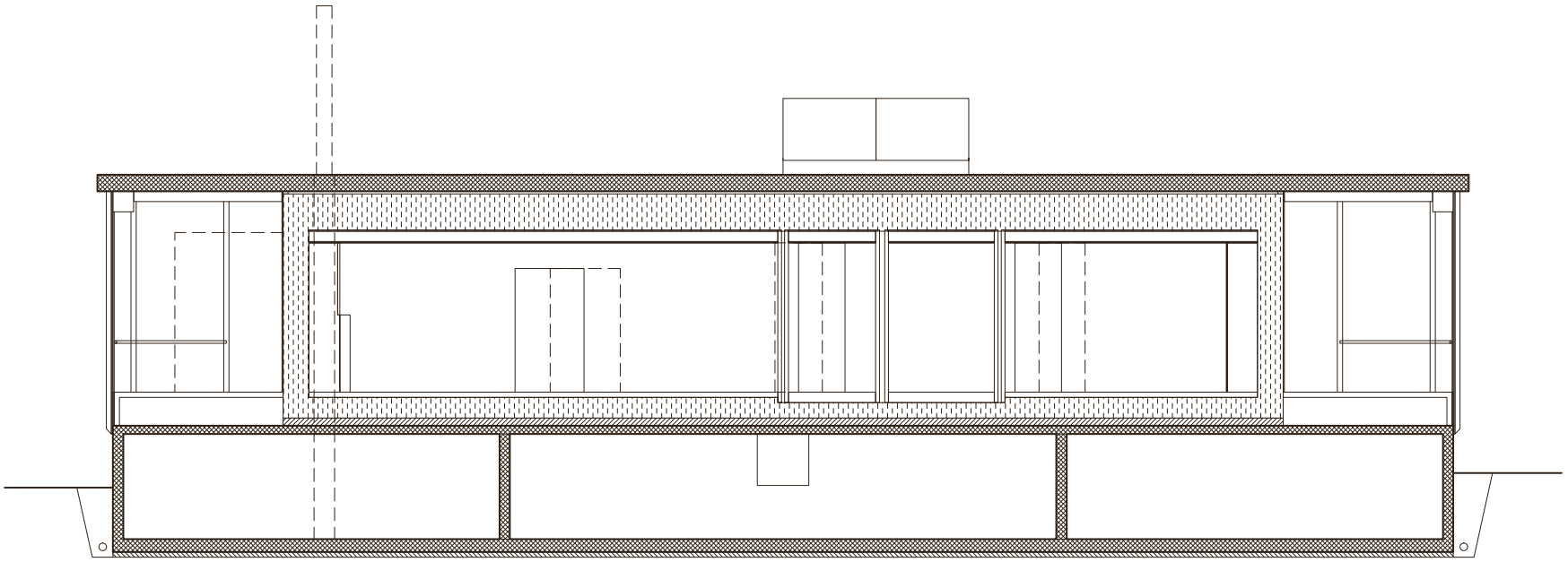
Polazeći od svijesti da je sve energija, za pasivnu je kuću važnija izolacija od forme pa je njezin dizajn stoga uvelike uvjetovan izolacijom. Kako bi se mogla upotrebljavati svakodnevno prisutna energija Sunca, kuća na Perjavici kompletno je ostakljena prema jugu, gdje su najveći dobici energije, te prema istoku i zapadu, da bi ultraljubičaste zrake nesmetano mogle s tri strane zagrijavati predmete u interijeru, a da infracrvene, toplinske zrake koje ti predmeti reflektiraju ne bi mogle izaći.[22] Betonski zid na sjeveru (gdje je gubitak energije najveći) formira izolaciju od atmosferskih utjecaja i služi kao spona između krovne ploče sa solarnim krovnim panelima i podne ploče koja je bila nužna jer je teren laporast, lakše nosivosti.[23] U taj snažno izolirani omotač (toplinska je izolacija debljine cca 50 cm u podu i čak 70 cm na stropu) umetnuta je drvena ostakljena konstrukcija pa kuću u osnovi čine ta dva elementa. Grijanje i provjetravanje regulira se uređajima uz izrazito mali gubitak energije, smještenima u gospodarskom ormaru u hodniku u kojemu je koncentrirana tehničko-energetska podrška kući.[24] Kišnica s ravnog krova sakuplja se u cisterni u tehničkom podrumu te služi za ispiranje sanitarija i pranje terase.

12
The Athens Charter for the Restoration of Historic Monuments.
13
Bandarin, van Oers, *The Historic Urban Landscape,* 22.
14
Iamandi, "The Charters of Athens of 1931 and 1933," 17–28.
15
In more recent years, the theory of conservation has seen the introduction of the concept of the historical urban landscape, highlighting the need for an analysis of the interaction between new urban development and architectural heritage. For a contextualisation of monuments in the wider urban context, see: Bandarin, van Oers, *The Historic Urban Landscape.*
See the footnote on page 52.
16
Pelkonen, "The search for (communicative) form," 86
17
Cited in: Gausa, "House as a box," 61.
18
Bogdan Budimirov, born in 1928 in Izbište in modern-day Serbia, began studying at Zagreb's Faculty of Architecture in 1948, and during his studies was a teaching aide to Professors Strižić, Galić, and Kauzlarić. He began working in architectural firms in 1949 in Yugoslavia, and in 1966 he left for Germany. He dealt with a range of tasks, from the technology of prefabrication to the design of furniture and packaging. In his work, he placed an emphasis on teamwork and the creation of complex products in tandem with the development of its function, construction, technological aspects, and form. In collaboration with others, he created prefab systems including the YU-60, YU-61, Spačva, Marles, and SPIG, as well as the system used for the building of the Nuremberg exhibition centre, the spaces for travellers at the Munich II airport, and the steel system for the headquarters of the SPD party in Bonn. For more information, see: Budimirov, *U prvom licu,* 221–222.

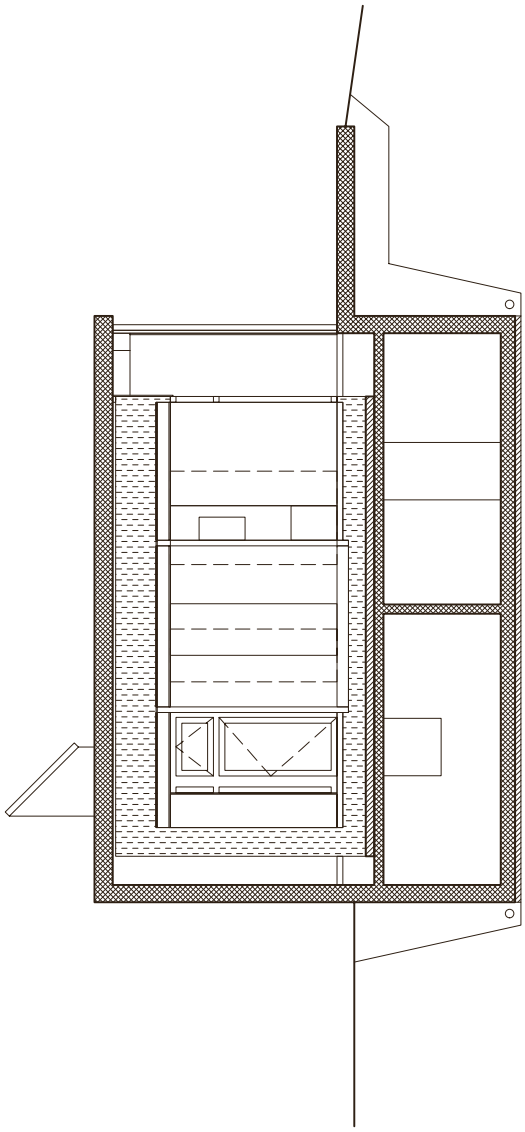
These two contrasting ideologies both, in their own ways, put in motion the internationalisation of the debate about the values of conservation, and the manner in which structures belonging to our architectural heritage were to be protected.[14] While CIAM's charter recognised the importance of preserving historically-significant structures, it viewed them as witnesses to the history and culture of a bygone era around which a new system of architectural forms had developed. The conservators' charter, meanwhile, emphasised not only the importance of prolonging a monument's life; it also moved focus away from its context, instead highlighting its role as part of the urban whole.

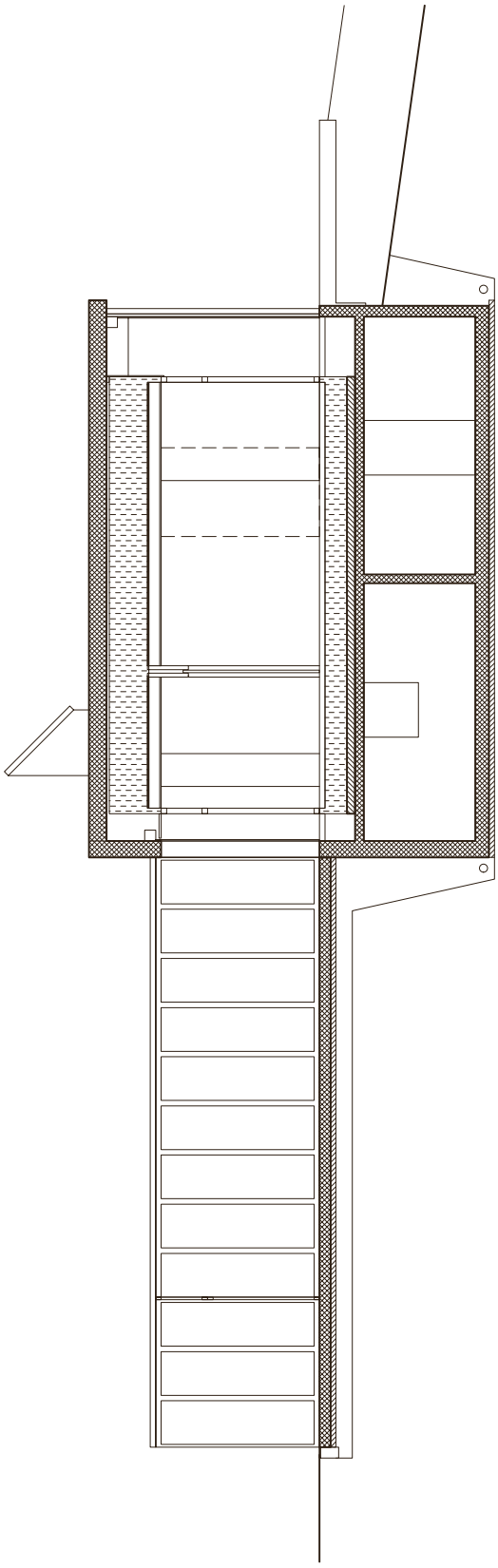
In order to discuss the dialectic aspects of the concepts "house" and "monument," the two Athens Charters are important, because they marked a key moment in the division of architecture and conservation into two separate disciplines, each with its own system of criteria and goals. In doing so, each discipline could be divided into two autonomous fields, and could develop separately, and at their own pace.[15] The concept of the house as a "machine for living in" could, in light of these changes, develop unheeded by any demands set by existing forms and future functions—that is, independently of the concept of the monument. According to the architect Eero Saarinen, a representative of the so-called "second generation of modernists" and exceptionally sensitive to the outer context in his approach to designing new structures, by the late 1950s architects had become processors of information, and architectural structures a part of the flow of information. Large amounts of information led to a considerable number of options when it came to shaping buildings. Form was no longer the ultimate structural nor functional solution, but rather a choice made by the architect.[16] The house thus gradually becomes, as the architect Blanca Lleó put it, a kind of interactive "machine for processing."[17]

It was in the 1950s that Bogdan Budimirov began working in Zagreb, in the midst of the urbanisation and industrialisation of post-war, socialist Yugoslavia, working in the fields of systemic design and prefabrication, and in the mid-1960s he headed to Munich. He worked in Germany for over 20 years, in the broad fields of systemic design in highly-developed technological environments, up until his return to Zagreb in 1988.[18] At the end of the 1960s, he began planning a residential house in Zagreb, on Perjavica Street, into which he would move fifty years later while it was still unfinished, and gradually begin completing the project's interior. The design of the house is based on an interaction with its natural surroundings and the living habits of its users, through Budimirov's interpretations of long-lasting materials, energy-efficient technologies, and a floor plan open to individual interpretation. The "House for Two" is thus a place open to new developments, and can therefore exist in a state of continual change, resisting the possibility of becoming a monument in the classic sense of the word.



Bogdan Budimirov, „Kuća za dvoje", presjeci, 2014. Izvor: arhiv časopisa *Oris*, 2017. / Bogdan Budimirov, the "House for Two," cross sections, 2014. Courtesy of the *Oris* magazine's archive, 2017
↑ ↓





Pogled na kuću sa zapada. Unutar betonske ovojnice umetnuta je drvena ostakljena konstrukcija kuće. Foto: Marko Mihaljević, 2018. /
View of the house from the west. Within a concrete outer layer, the wood and glass construction that makes up the house itself was installed.
Photo: Marko Mihaljević, 2018
→

„Kuća za dvoje" tako, u prisnom suživotu s prirodnim okolišem, predstavlja daljnji razvoj ideje „stroja za stanovanje". Upravo u inspirativnosti i mogućnosti da se razvija kroz vrijeme i jest veličina Le Corbusierove metafore. Naime, kuća kao „stroj za stanovanje" težila je tome da proizvede životne uvjete slijedom zadanog programa, ujedno potvrđujući dominantni princip arhitekture 1920-ih i 30-ih godina: „forma slijedi funkciju".[25] No dok je prva generacija modernista percipirala arhitektonsko djelovanje primarno kao projekt koji daje odgovore na funkcionalna pitanja, druga generacija doživljava arhitekturu kao protok informacija, čija je osnovna vrijednost u njezinu utjecaju na promatrača.[26] Da bi taj utjecaj bio što afirmativniji, Eero Saarinen, u intervjuu za časopis *Perspecta* iz 1961. godine, fundamentima moderne arhitekture—funkcionalnom integritetu, jasnoj strukturi i svijesti o duhu vremena (*Zeitgeist*)—koje treba kontinuirano promišljati i respektirati, dodaje i ove sljedeće: izražajnost građevine, bavljenje njezinim cjelokupnim okruženjem i dosljedan razvoj koncepta do konačnog zaključka. Promatrajući arhitekturu modernizma kroz tih šest principa, „šest uporišta arhitekture", smatra je dovoljno distinktivnom od ranijih stilskih razdoblja, no ujedno pripadnom znatno kompleksnijem društvu i tehnologiji, s mnogo širim spektrom mogućnosti arhitektonskog oblikovanja.[27] Restriktivni minimalizam „stroja za stanovanje" otvara se tako s jedne strane formalnoj ekspresiji, premda i dalje u okvirima masovne proizvodnje, a s druge pak interakciji s okolišem. Koncept kuće evoluirao je tako, na tragu Saarinenove misli, u „stroj za procesuiranje", odnosno kuću koja se manifestira kao sučelje između čovjeka, njegovih potreba i njegova okruženja.[28]

Da bi takva interaktivnost bila moguća, nužna je adaptabilnost u odnosu prema promjeni programa, koja se očekivano može razviti iz montaže i prefabrikacije metodologijom sistemskog dizajna, a to su teme kojima se Budimirov bavio u gradnji velikih serija, čiji su rezultat brojni sustavi prefabriciranih drvenih i čeličnih građevina.[29] To je za njega značilo apstrahirati relaciju između programa i forme te crteža i realizacije te projektirati čitav proces analize, proizvodnje, ali i održavanja građevine. Oblikovanje je tek jedno od polazišta u projektu čiji su modul, program i modularna koordinacija jednakovrijedni elementi konstrukcije.[30] Po povratku u Zagreb 1988. godine, u sasvim drugom mjerilu, ali na istim principima, posvećuje se industrijskom dizajnu namještaja i nastavlja projektirati kuću na Perjavici, u koju se sa suprugom useljava 2014. godine.[31] U kuću je uneseno ono najnužnije, a ujedno i gotovo posve dovoljno, iz njihovih prijašnjih domova. Moduliranje prostora dijelom je temeljeno na naslijeđenim elementima iz kuće u Novakovoj 11 u Zagrebu projektanta Bogdana Petrovića, koji su tako poslužili kao simbolični prefabrikati, unaprijed gotove komponente kuće.[32] Inventar prenesen iz Novakove čine dvoja ostakljena klizna vrata (jedna ugrađena kao veza hodnika ili servisnog i radnog trakta s boravkom i blagovaonicom, dok druga, koja su odredila visinu kuće, povezuju tu prostoriju nadalje s kuhinjom) i glazirani keramički kamin.[33] Iz stare obiteljske kuće na Perjavici projektanta

THE HOUSE: FROM A "MACHINE FOR LIVING IN" TO AN INTERACTIVE DIAGRAM

"The program was updated as we changed with every passing year. The house is not conceived of as just a closed program, but rather as an integration of the house and everything that happens on the land itself," says Bogdan Budimirov about the house that he designed for himself and his wife, who took on the role of client opposite her husband the architect.[19] The placement of the house on the plot of land is based on the principle of minimal intervention in the existing environment on the site, principally its plant life. It is designed using modules of 120cm in many various versions over the course of 50 years. The location did not change, nor did the clients—Budimirov and his wife. The features that remained constant over the course of 50 years were the desire for a one-storey building (given that the house was meant to provide ease of movement for elderly people), and a strong connection with the terrain.[20] This connection inspired, firstly, the idea to use energy from the earth to pre-heat the air, which gradually evolved into the creation of a passive house: a structure that is at once energy efficient, comfortable, economical, and eco-friendly.[21]

25
Sintagma se pripisuje arhitektu Louisu Sullivanu. Modernistički diskurs temeljen na konceptu forma-funkcija može se pratiti sve od klasicističkog funkcionalizma 18. stoljeća, vidi: Poerschke, *Architectural Theory of Modernism: Relating Functions and Forms.*
26
Pelkonen, „The search for (communicative) form", 86.
27
Saarinen, „Saarinen", 29–42; Pelkonen, „The search for (communicative) form", 85.
28
Gausa, „House as a box", 61.
29
Budimirov, *U prvom licu,* 15–129; Mattioni, „The JU 61 System", 264–281.
30
Budimirov, „Arhitekti ljudima određuju život".
31
Isto.
32
Prpić, „Kuća za dvoje", 162–175.
33
„Sve je na struju, a kad je ne bude, za grijanje imamo kamin s čeličnim uloškom.", Budimirov, „Arhitekti ljudima određuju život".
34
O arhitektu Bohutinskom vidi više: Šerman, Bačić, Jakšić, „Arhitekt Gustav Bohutinsky i Bauhaus".
35
Budimirov, *U prvom licu,* 137–143; 161–175. Stol *Moya* laureat je nagrade Gute Industrieform 1982. u Hanoveru
36
Na kontinuitet projekta i realizacije kao kvalitetu ove kuće, u smislu procesa koji arhitektonsku ideju nastavlja adaptirati i apsorbirati kroz njezinu materijalizaciju, upozorio me arhitekt Vasa Perović i tako me generalno zaintrigirao za tu temu.

Gustava Bohutinskog prebačen je luster s mogućnošću stropnog i visećeg osvjetljenja, dizajn arhitekta Mladena Kauzlarića, još jedan antikni luster koji za sada čeka svoje mjesto u kući, stolica uz radni stol i dva orijentalna tepiha.[34] Tu su i komadi namještaja preneseni iz obiteljskih boravišta u Njemačkoj: Knollov stol koji je dizajnirao Eero Saarinen, s plohom od *carrara* mramora (izniman primjer njegova uvođenja skulpturalne forme u tehnologiju masovne proizvodnje), četiri crne stolice *Serie 7* Arnea Jacobsena za Fritza Hansena te još jedan nemontirani luster—*PH 5* dizajnera Poula Henningsena. Uz radni crtaći stol *Moya* koji je Budimirov dovršio 1980. godine, tu je i njegova stolica od elastične drvene ploče s prorezima, dizajnirana upotrebom elastičnog sjedišta za stolce koje je patentirao 1959. godine.[35] Preostale funkcije u prostoru iste blago sive boje na betonskom podu i zidovima ispunjava asketska konstrukcija od bijelih drvenih ploha koje preuzimaju uloge od polica do kliznih pregrada (u tom su slučaju plohe ovješene isključivo na gornjoj vodilici). Par se u kuću uselio s crtaćim stolom unutar procesa projektiranja, kako bi se kuća dovršavala paralelno s izvedbom, koja nije realizacija idealne arhitektonske ideje, nego proces koji je s vremenom adaptira, apsorbira i tako pretvara u projekt.[36]

With an awareness that everything is energy as a starting-point, in a passive house insulation is more important than form, and its design is consequently in large part shaped by its isolation. In order to take advantage of readily-available solar energy, the southern side of the house on Perjavica is made completely of glass, as this is the place where the most energy is concentrated. The eastern and western sides are likewise glass, so that ultraviolet rays can heat the interior from three sides without obstruction, and so that infrared rays, which carry heat, can reflect off the objects in the interior and remain trapped inside the house.[22]

The concrete northern wall (where the loss of energy is greatest), creates insulation from atmospheric influences, and acts as a link between the roof with its solar panels, and the floor slab, which was necessary as the terrain is marly, with a diminished load-bearing capacity.[23] Into this well-insulated layer (the thermal insulation is approximately 50cm in the floor and 70cm on the ceiling) was placed a wooden, glass structure, and the house is therefore made up of these two basic elements. The heating and ventilation of the house is regulated using devices which are located in a cabinet in the hallway, which contains all the technical and energy-related controls for the entire house. The house loses an exceptionally small amount of energy on a day-to-day basis.[24] Rainwater from the flat roof is collected in a cistern in the basement and is used for flushing out the sanitary facilities and washing the terrace.

The "House for Two" thus, in its close co-existence with its natural surroundings, represents the further development of the idea of the "machine for living in." It is precisely in the inspiration and possibilities for it to evolve throughout time that reflects the essence of Le Corbusier's metaphor. The house, as a "machine for living in," aims to produce certain living conditions by following a set programme, upholding as it does so the dominant principle of 1920s and 1930s architecture: "form follows function."[25] But while the first generation of modernists perceived architecture as, primarily, a project that provides answers to questions of function, the second generation experienced architecture as a flow of information, whose key value rests in its effect on observers.[26] In order to make this influence more affirmative, Eero Saarinen, in an interview for the *Perspecta* magazine in 1961, discussed the fundamental elements of modern architecture—functional integrity, clear structure, and awareness of the spirit of the time (*Zeitgeist*)—which must be continually deliberated and respected. To these elements Saarinen added the following: the expressiveness of the structure, upkeep of the building's entire surroundings, and the principle of carrying a concept to the ultimate conclusion. Viewing the architecture of modernism through these six principles, the "six pillars of architecture," he considers it distinctive from earlier stylistic periods, but at the same time as belonging to a more important and more complex society and technology, with a much wider

19
Budimirov, "Arhitekti ljudima određuju život."
20
Budimirov, *U prvom licu,* 202–215.
21
Passivhaus Institut.
22
Pinterić, *Building Physics*. I am indebted to the physicist Dr Jadranko Gladić for his answers to questions relating to this book and other questions relating to the energy efficiency of the house.
23
There are large amounts of the radioactive gas radon on the site, which is heavier than air, and is therefore impossible to air out; instead, an outlet for the gas outside of the building's dimensions was created by installing slits in the floor structure, see: Budimirov, "Arhitekti ljudima određuju život."
24
The house has an A+ energy rating, and requires just 5 kWh/m² of energy for heating per year. See: Prpić, "Kuća za dvoje," 162–175.
25
This syntagm is attributed to Louis Sullivan. The modernist discourse based on the concept form-function can be seen as far back as the Classicist functionalism of the 18th century. See: Poerschke, *Architectural Theory of Modernism: Relating Functions and Forms*.
26
Pelkonen, "The search for (communicative) form," 86.

Soba za boravak i blagovanje u „kući za dvoje". Ostakljena klizna vrata prenesena iz nekadašnjeg stana obitelji Budimirov u Novakovoj ulici u Zagrebu, stolica Arnea Jacobsena i Saarinenov stol pod lusterom koji je dizajnirao Mladen Kauzlarić, prebačenim iz stare obiteljske kuće na Perjavici. Foto: Marko Mihaljević, 2018. /
The living and dining room in the "House for Two." The glass sliding doors were taken from the old Budimirov flat in Novakova Street in Zagreb. The chair by Arne Jacobsen, and the table by Saarinen, which is placed under a chandelier by Mladen Kauzlarić, which was transferred from the old family home on Perjavica Street. Photo: Marko Mihaljević, 2018
←

spectre of possibilities for architectural design.[27] The restrictive minimalism of the "machine for living in" opens itself up to, on the one hand, formal expression (albeit within the bounds of mass production), and on the other hand to an interaction with its environment. The house as a concept evolved in this manner, building on Saarinen's ideas, into a "machine for processing:" a house that manifested itself as an interface between man, his needs, and his surroundings.[28]

In order for such interaction to be possible, adaptability to changing programmes is necessary, which naturally can be developed through the process of prefabrication and its assembly, using the methodology of systemic design, and these were themes that Budimirov dealt with when building his large series of structures, the results of which are numerous systems comprising prefabricated, wooden, and steel structures.[29] For him, this meant abstracting the relation between programme and form, the plans and their realisation, and creating an entire process of analysis, production, and maintenance for the building. The design is just one of the starting-points in a project whose modules, programme, and modular co-ordination are equally important elements.[30] Upon his return to Zagreb in 1988, on a different scale but based upon the same principle, he dedicated himself to the design of furniture and continued to design the house on Perjavica Street. He moved into the house in 2014 with his wife.[31] They only brought those things that were most essential for them into the house, items which turned out to be more than enough, from their previous homes. The modulation of the space was in part based on elements that it inherited from the house at 11 Novakova Street in Zagreb, designed by Bogdan Petrović, which served as symbolic prefabricated elements, pre-made components for the house.[32] From the house in Novakova Street two glass sliding doors were brought: one set was installed in order to join the hallway and the service areas with the living and dining rooms, while the second set, which dictated the height of the house, now link this space with the kitchen beyond. A glazed ceramic fireplace was also brought over.[33] From the old family house on Perjavica Street, which had been designed by Gustav Bohutinsky, a chandelier designed by the architect Mladen Kauzlarić was brought over, which offered the possibility of ceiling and hanging lighting.[34]

A second, antique chandelier, was also brought over, and is currently waiting to be installed in the house. In addition, the chair beside the desk and two Oriental carpets were brought over. There is also furniture transferred from the family home in Germany: "Knoll's" table designed by Eero Saarinen, with its Carrara marble top (an excellent example of his introduction of sculptural form to the technology of mass production), four black "Serie 7" chairs by Arne Jacobsen for Fritz Hansen, and one last unmounted chandelier—the "PH 5" designed by Poul Henningsen. Along with the "Moya" drawing desk that Budimirov finished in 1980, there is his chair made

27
Saarinen, "Saarinen," 29–42; Pelkonen, "The search for (communicative) form," 85.
28
Gausa, "House as a box," 61.
29
Budimirov, *U prvom licu,* 15–129; Mattioni, "The JU 61 System," 264–281.
30
Budimirov, "Arhitekti ljudima određuju život."
31
Ibid.
32
Prpić, "Kuća za dvoje," 162–175.
33
"Everything runs on electricity, and when there is none, we have a fireplace with a steel insert." Budimirov, "Arhitekti ljudima određuju život."
34
For more about the architect Bohutinsky see: Šerman, Bačić, Jukić, "Arhitekt Gustav Bohutinsky i Bauhaus."

↑

Kamin prebačen u „kuću za dvoje" iz stana u Novakovoj ulici te stolica od elastične drvene ploče s prorezima koju je dizajnirao Bogdan Budimirov. Foto: Marko Mihaljević, 2018. / The ceramic fireplace from the flat in Novakova Street, and the chair made out of an elastic wooden board with slits in it, which was designed by Bogdan Budimirov. Photo: Marko Mihaljević, 2018.

Vrata prema kuhinji u kući na Perjavici prenesena iz nekadašnjeg stana obitelji Budimirov u Novakovoj iskorištena su kao svojevrsni prefabrikat i modularni element te su odredila visinu kuće. Foto: Marko Mihaljević, 2018. / The doors leading to the kitchen, which were brought over from the old Budimirov flat on Novakova Street, were used as a kind of prefabricated and modular element; Budimirov determined the height of the house based on their dimensions. Photo: Marko Mihaljević, 2018

→

Opis interijera „kuće za dvoje", u kojemu je osnovna dispozicija osobna, baš kao i svaki element interijera, a prostor pritom nije pretjerano determiniran, upućuje na pristup projektiranju koji prati život korisnika na način koji nije formalno isključiv. Prethodni pak opis odnosa kuće s prirodnim i energetskim okruženjem ukazuje na ključnu poziciju njezina ekološkog aspekta. Ekološko i antropološko promišljanje koje rezultira reduciranom materijalizacijom ukazuje na mogućnost višestrukog korigiranja forme i programa ove kuće. Ona zato predstavlja motiv za razmišljanje o mogućnosti prilagodbe arhitektonskog objekta tehnološkom napretku i životnim navikama korisnika općenito. Drugim riječima, ona nosi u sebi potencijal kontinuirane interaktivnosti između arhitekture, tehnologije, ljudi i prirode o kojoj je uputno razmišljati tijekom čitavog procesa projektiranja.

Od početka profesionalnog djelovanja, koje je započeo još kao student, Budimirov je temeljio svoj rad na istraživanju i eksperimentu koji su ga vodili k inovacijama, a time neizostavno i osmišljavanju i racionalizaciji procesa rada.[37] Sistemski dizajn znači ukidanje granica između arhitekture i dizajna, između tehnologije u službi funkcije i forme, pa tako i između projekta i izvedbe. Bit je u njegovu sistemskom načinu razmišljanja koji omogućuje modulaciju i prefabrikaciju samih projektantskih ideja, dok je tehnologija ta koja pruža mogućnost prefabrikacije i modularnosti u projektiranju i izvedbi. Jer realizacija prostornog objekta u bilo kojem mjerilu samo je krajnji čin jedinstvenog procesa koji iz razmišljanja preko sustava crteža, brojeva i riječi prenosi ideju u stvarnost, određujući joj djelomično već u samom stvaralačkom procesu stupanj trajnosti, kao i razloge za njezino održavanje. Tehnologija projektiranja bitna je koliko i tehnologija same izvedbe, pri čemu je tema organizacije niza informacija nužnih za sveobuhvatno oblikovanje danas sve više u fokusu projektanata.[38] No ono što je i dalje uvriježena osnova prikaza svakog arhitektonskog projekta jest tlocrt, koji Le Corbusier definira kao generator oblikovanja volumena i ploha, nositelja reda i biti.[39] On iskazuje potrebu za novim tlocrtom, planom (kako za kuću tako i za grad), u skladu s novim duhom vremena.[40]

Zauzimajući kritički stav naspram apstraktnog modernističkog koncepta prostora i vremena, nizozemski strukturalist Aldo van Eyck teži ka postizanju kvaliteta izgrađenog okoliša temeljenih na sposobnosti arhitekture da u interakciji s korisnicima transformira prostore u konkretna „mjesta" za konkretne „događaje".[41] Prostorna organizacija „kuće za dvoje" uvjetovana je u tom smislu željom arhitektove supruge: da iz kuhinje može s njim razgovarati dok je on u spavaćoj sobi ili dok je u dnevnom boravku.[42] Ne razmišljajući o tlocrtu kao o fiksnoj (kom)poziciji, već kao o modelu podložnom interpretaciji, Budimirov, za razliku od Le Corbusiera, respektira bit tradicionalnog tlocrta stambene kuće, poput svojeg mentora Zdenka Strižića. Smatra ga kulturološkim konstruktom, obrascem koji se razvija s vremenom uslijed niza faktora i veoma sporo mijenja te je potrebno odabrati onaj koji pruža mogućnost optimalnog kompromisa: „Nisam izmišljao novi tlocrt. Sjetio sam se linearnih vojvođanskih kuća—kuhinja je

out of an elastic wooden board with slits in it, designed using an springy seat that he patented in 1959.[35] The other spatial functions are addressed using a plain construction made out of wooden white planks that take on the role of everything from shelves to sliding enclosures (in this case, the planks are mounted only on an upper track guide). The couple moved the drawing board into the house while it was still being designed so that the design might be finished at the same time as the structure, which is by no means the execution of an ideal architectural idea, but rather a process which with time adapts, absorbs, and so transforms the project.[36]

Every element in the interior is personal. The space itself is not rigorously defined, and so leads to an approach to design that adapts to the living style of the user in a manner that is not formally exclusive. Meanwhile, the preceding description of the relationship between the house and its surroundings—its natural environment and its energy usage—points to the importance of its ecological aspect. Ecological and anthropological considerations that result in the house's reductive style demonstrate the possibility of multiple corrections of the form and system of this house. It therefore represents a motif for thinking about the possibilities of adapting architectural structures to technological developments and the living habits of users more generally. In other words, it contains within it the potential for a continued interaction between architecture, technology, people, and nature, about which it is necessary to think about throughout the whole process of designing the building.

37
Popis patenata Bogdana Budimirova vidi u: Budimirov, *U prvom licu,* 225–226.
38
Ukidanje granica između projekta i izvedbe kroz razvoj tehnologije projektiranja u suvremenom kontekstu teme su koje dizajner Damir Gamulin razvija kroz softversku aplikaciju *Context Mapper,* uz pomoć koje organizira mnoštvo raznorodnih informacija u sustav prema algoritmima srodnosti, čime olakšava donošenje projektantskih odluka u procesu dizajna.
39
Le Corbusier, *Vers une architecture,* 71–87, 95, 96, 137.
40
Le Corbusier, *Vers une architecture.*
41
Eyck, „Place and Occasion", 471: „I arrived at the conclusion that whatever space and time mean, place and occasion mean more, for space in the image of man is place, and time in the image of man is occasion." Aldo van Eyck bio je član Teama 10, skupine osnovane 1954. godine koja je zauzela kritički stav prema konceptu funkcionalnog grada, ističući kao primarnu zadaću arhitekture i urbanizma pružanje mogućnosti identifikacije pojedinca i zajednice s mjestom; vidi: *Mumford, The CIAM Discourse on Urbanism, 1928–1960,* 238–258.
42
Prpić, „Kuća za dvoje", 162–175.
43
Budimirov, „Arhitekti ljudima određuju život"; Prpić, „Kuća za dvoje", 162–175.
44
Hertzberger, „Time-based buildings", 82.

u sredini i povezana s kupaonicom s jedne strane, a s druge je strane soba. Nema smisla smišljati nove tlocrte. Tako gubite puno vremena na nešto što ne možete izmisliti." [43] U tom je interpretativnom smislu svojih postojanih esencijalnih kvaliteta arhitektonska baština pouzdano ishodište za odabir prostornih rješenja i daljnje razvijanje njihovih suptilnih varijacija. Na van Eyckova razmišljanja nadovezuje se Herman Hertzberger koji se kontinuirano bavi temom adaptabilnosti arhitektonskih oblika. Biti svjestan vremenske dimenzije arhitekture znači, prema Hertzbergeru, biti svjestan upravo njezine (re)interpretativne dimenzije.[44]

From the beginning of his professional life, which he began while he was still a student, Budimirov based his work on research and experimentation, which led him in the direction of innovation, and thus to the continual editing and rationalising of his professional approach.[37] Systemic design means breaking down all barriers between architecture and design, between technology serving the interests of function and of form, and also between projects and their execution. His systematic approach allows for the possibility of modulating and prefabricating the architect's plans, while technology is responsible for offering the possibility of prefabrication and modularity in both the planning and execution phases. Because the execution of an object in space, by any standard, is merely the final phase in a unique process that takes ideas and, via drawings, numbers, and words translates an idea into reality, lending it, throughout the creation process, a certain measure of durability, as well as providing reasons for its maintenance. The technology used to design the structure is equally as important as the technology used to construct the building itself, and the theme of organising the wealth of information needed to shape the building in a comprehensive manner is more and more a focus for architects.[38] Nevertheless, the basic overview of a project remains the floor plan, which Le Corbusier defined as a generator of designs for the space and its surfaces, the carier of order and the essence of a project.[39] He highlights the need for a new floor plan, a plan (for the house as well as the city), that is in keeping with the new spirit of the age.[40]

The Dutch structuralist Aldo van Eyck takes on a critical position in relation to the abstract modernist understanding of space and time, arguing that the attainment of certain qualities in the built environment is based on the potential of architecture to, through interaction with users, transform space into specific "places" for specific "events."[41] The spatial organisation of the "House for Two" is based in this sense on the wishes of the architect's wife: that she can speak with him from the kitchen while he himself is in the bedroom or living room.[42] By not thinking of the floor plan as a fixed com(position), but rather as a model subject to interpretation, Budimirov, in contrast to Le Corbusier, respects the essence of the traditional floor plan of a residential house, like his mentor Zdenko Strižić. He considers it a cultural construct, a template that develops over the course of time in response to a range of factors, and which changes very slowly; it is thus necessary to choose the one which offers the optimal compromise: "I didn't think up a new floor plan. I thought of the linear houses of [the Serbian province of] Vojvodina—the kitchen is in the middle and connected to the bathroom on one side, and a room on the other. It doesn't make sense to dream up new floor plans. You lose a lot of time on something that cannot be thought up in that way."[43] In this interpretative sense, in terms of its essential qualities, architectural heritage is a reliable starting-point for choosing spatial solutions

35
Budimirov, *U prvom licu,* 137–143; 161–175. The "Moya" drawing board won the Gute Industrieform prize in 1982 in Hanover.
36
The architect Vasa Perović introduced me to the project and the continuous adaptation of the house as a sign of the quality of this project, in terms of the process by which the architectural idea continues to be adapted and absorbed as it is being built.
37
For a list of Budimirov's patents, see: Budimirov, *U prvom licu,* 225–226.
38
The breaking down of borders between the project and its execution through the development of the technology of design in the contemporary context are themes that the designer Damir Gamulin develops through his software application *Context Mapper.* It helps him to sort a wealth of information into a system based on algorithms of affinity, which simplifies the process of making decisions in the process of design.
39
Le Corbusier, *Vers une architecture,* 71–87, 95, 96, 137.
40
Le Corbusier, *Vers une architecture.*
41
Eyck, "Place and Occasion," 471: "I arrived at the conclusion that whatever space and time mean, place and occasion mean more, for space in the image of man is place, and time in the image of man is occasion." Aldo van Eyck was a member of Team 10, a group established in 1954 that adopted a critical approach towards the concept of the functional city, highlighting how the primary task of architecture and urbanism is offering the opportunity of identifying an individual and a community with a place. See: Mumford, *The CIAM Discourse on Urbanism, 1928–1960,* 238–258.
42
Prpić, "Kuća za dvoje," 162–175.
43
Budimirov, "Arhitekti ljudima određuju život;" Prpić, "Kuća za dvoje," 162–175.

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Pogled na južni trijem sa zapada. Foto: Marko Mihaljević, 2018. / View of the southern porch from the west. Photo: Marko Mihaljević, 2018

Južni trijem. Ophod je s vanjske strane obrubljen hiperdimenzioniranim roletama za regulaciju osunčanja i izloženosti atmosferilijama te rukohvatom radi lakšeg kretanja. Foto: Marko Mihaljević, 2018. / The southern porch. Massive shutters running along the length of the porch are used to regulate sunshine and exposure to the elements, and there is also a handrail to make moving around easier. Photo: Marko Mihaljević, 2018.

←

Kada govorimo o „kući za dvoje" zasigurno je nećemo opisati tlocrtom u klasičnom smislu. Ključno je reći da je njezina konstrukcija tretirana kao struktura čija se opna mijenja u odnosu prema vanjskim utjecajima i unutrašnjim reakcijama; prema suncu, svjetlu, pogledu. Unutar betonske ovojnice umetnuta drvena ostakljena konstrukcija proširena je sprijeda obodnim trijemom koji se s bočnih strana dodatno širi do dimenzija natkrivenih prostorija. Na trijem se prema jugu nadovezuje ploha, poput podloge za sobu sa „zidovima od zraka", koja izravno ulazi u teren. Ophod je obrubljen s vanjske strane tek hiperdimenzioniranim roletama za regulaciju osunčanja i izloženosti atmosferilijama i rukohvatom radi lakšeg kretanja u šetnji koja sa svih strana pruža bogatstvo vizura prema „divljem" vrtu. Rolete ujedno gradiraju stupanj interakcije između zatvorenog dijela kuće i terena kojemu pripada. Osnovni su element te kuće „umetnute" u zaštitni konstrukt nosivi okviri koje ispunjavaju opne. Dakle, kuća nije determinirana programom ni formom koliko činjenicom da je sastavni dio svojeg okruženja te tehničkim i inženjerskim odlukama. Ona nije neutralna „kutija", potencijalni kontejner bilo kojeg sadržaja, premda u svojoj jednostavnosti može izgledati „obično". No ona nije bez identiteta, dapače, jasno reflektira težnje i ideale svojeg autora. Kontekstualna preciznost u projektiranju čini je jedinstvenom i izražajnom koliko i osobnost njezina asketskog interijera, u kojem ništa nije suvišno, a svaka stvar ima duboko značenje. Istodobno, nije zatvorena za interpretacije, jer koliko god bila slika svakodnevice svojih korisnika, kuća na Perjavici primarno je slika odnosa čovjeka s prirodom i tehnologijom.[45]

Na tragu analize „kuće za dvoje" možemo nastaviti razmišljanje o odnosu funkcije i forme u suvremenom kontekstu. Jer ubrzane promjene koje donosi naše vrijeme generalno zahtijevaju da se program kuće radikalno mijenja već i tijekom samog procesa izvedbe. Više je ljudi na svijetu i trebamo više prostora, više energije, više materijala i više razmišljanja o održivosti fizičke forme.[46] Naše razumijevanje svemira, odnosno prostorne i vremenske dimenzije, reflektira se na arhitekturu i provocira nove eksperimente na polju estetike. Povezujući arhitekturu sa znanstvenom interpretacijom prostora i vremena arhitekt Manuel Gausa skicira tu vezu kroz povijest kako bi nas približio suvremenom informacijskom (interaktivnom) konceptu prostora i vremena.[47] Razlikuje tako klasična razdoblja, u kojima su znanstvenici od Aristotela do Newtona percipirali vrijeme kao metafizički koncept odvojen od prostora, i njegovali ideju hijerarhijski ustrojenog, apsolutnog svemira u kontinuumu. To je poimanje zamijenila Einsteinova vizija četverodimenzionalnog sustava „prostorvrijeme" (u kojemu vrijeme ovisi o položaju promatrača u prostoru), „relativne pozicije" i fragmentiranih iskustava, koja je bitno označila modernističku, ali i kasniju tradiciju tumačenja arhitekture.[48] Klasičnu ideju reda u skladu s aristotelovskom (i njutnovskom) interpretacijom prostora, koja slijedi kompoziciju kao hijerarhijsku koheziju predvidljivog rasporeda, naslijedila je tako modernistička ideja alternativnog reda. Temeljena je na paradigmi pozicioniranja kao organizacije prostora. No premda

and the further development of their subtle variations. Herman Hertzberger, who continually works with the theme of the adaptability of architectural forms, responds to van Eyck's ideas. To be aware of the temporal dimension of architecture means, according to Hertzberger, to be aware of its (re)interpretative dimension.[44]

When speaking about the "House for Two," we will certainly not describe it based on its floor plan in the classic style. It is important to note that its construction is treated as a structure whose outer layer changes in relation to outside influences and internal reactions; to the sun, light, vision. Within the concrete outer layer the wood and glass construction spreads out beyond the confines of the outer porch, which from the sides expands still further to match the dimensions of the roofed spaces. To the south, the porch is joined to a sheet, like a foundation for a room with "walls made of air," which enters into the terrain directly. The length of the porch is bordered from the outer side with massive shutters to regulate the amount of sunshine and exposure to the weather, and with a handrail to facilitate movement when walking around the building, which from all angles offers a wealth of stunning views over the "wild" garden. The shutters at once control the level of interaction between the closed part of the house and the terrain to which it belongs. The basic element of this house that has been "inserted" into a protective outer structure are the load-bearing fames that are completed with walls.

45
Isto.
46
Leupen, „Towards time-based architecture", 12.
47
Gausa, „Dynamic time, informal order", 68–75.
48
Isto, 68–69. Giedion publicira svoju knjigu *Space, Time and Architecture* 1941., 36 godina nakon što je Albert Einstein uopće uveo u znanost teoriju relativnosti.
49
Gausa, „Dynamic time, informal order", 73.
50
Hertzberger, *Lessons for Students in Architecture,* 148.
51
Primjer je projekta čiju bit nije moguće iskazati statičnim tlocrtom Mini Art Kino u Rijeci D. Gamulina i A. Sevšeka. Potencijal interakcije s korisnicima evidentan je tek kroz dinamični prikaz prostora koji u različito vrijeme može imati posve različito značenje. Vidi: *Mini Art Cinema, Rijeka, Croatia.*

je pozicioniranje slobodniji prostorni raspored od kompozicije, i dalje je oslonjen na stabilnu organizaciju i iskaziv klasičnim tipovima dvodimenzionalnih nacrta. S predvidljivog svemira evoluirali smo do mjerljivog, a danas, suočeni s mnogo složenijim saznanjima o fenomenima koji definiraju naše okruženje, živimo u diferencijalnom poimanju univerzuma.[49] Gausa povezuje nasumičnost i taktičko procesuiranje informacija svojstveno kvantnoj mehanici i teoriji kaosa s potrebom za razumijevanjem dinamičkih i nelinearnih procesa u suvremenom formiranju prostora. Umjesto pozicije, u prvi plan dolazi dispozicija, odnosno taktička odluka i kombinacija informacija koje proizvode dinamična prostorna rješenja. Kako onda danas razmišljati o arhitekturi? Kako povezati statičnu arhitekturu s dinamičkim sustavom? Treba prihvatiti da je program privremena stvar, znatno kraćeg trajanja od forme, i vrijedi se upitati je li projekte u današnjem ubrzanom protoku informacija moguće uvijek iskazati klasičnim tlocrtom. Hertzberger ističe kako u pravilu nije točno da jednoj formi odgovara isključivo jedna funkcija.[50] Tlocrt našeg doba mogao bi težiti iskazu potencijala da zadovolji različite, pa i one nepredvidive funkcije u kraćim vremenskim intervalima—da omogući varijabilnost prostora u vremenu kroz njegovo izmjenično kodiranje i dekodiranje. To je onda tlocrt organizacijskog sustava, poput interaktivnog dijagrama; čiji se prostorni karakter temelji upravo na otvorenosti za promjene.[51]

The house is therefore not characterised by either design or form, so much as by the fact that it is an integral part of its surroundings, and its technical and engineering strategies. It is not a neutral "box," a container that could hold anything, although in its simplicity it can appear "ordinary." But it is not without an identity; indeed, it clearly reflects the aspirations and ideals of its creator. Contextual precision in its design makes it unique and expressive, as well as the character of its sparse interior, in which nothing is unnecessary, and every item has a deep meaning. At the same time, it is not closed to interpretation, because however much it is an image of its users, the house on Perjavica Street is primarily a reflection of the relationship between human beings and both nature and technology.[45]

In analysing the "House for Two," we can continue to think about the relationship between function and form in the contemporary context. The rapid changes that our era brings generally demands that the design of a house is radically changed even as it is being built. There are more people in the world, and we need more space, more energy, more materials, and more attention paid to the durability of physical forms.[46] Our understanding of the universe, of the spatial and temporal dimension, reflects on architecture and provokes new experiments in the field of aesthetics. In linking architecture with the scientific interpretation of space and time, the architect Manuel Gausa sketches this relationship throughout time in order to bring us closer to the contemporary informational (interactive) concept of space and time.[47] He distinguishes between the classical eras, in which scientists from Aristotle to Newton perceived time as a metaphysical concept separate from space, and nurtured the idea of a hierarchic, absolute universe on a continuum. This concept was replaced by Einstein's vision of a four-dimensional system of "space-time" (in which time depends on the position of the observer in space), "relative positions" and fragmented experiences, which were marked significantly by the modernistic, but also the later tradition of understanding architecture.[48] The classical idea of order, in line with the Aristotelian (and Newtonian) interpretation of space, which follows composition as the hierarchical cohesion of a foreseeable arrangement, was succeeded by the modernist idea of an alternative order. It is based on the paradigm of positioning as the basis for organising space. But while positioning is a freer spatial organisation than composition, it remains reliant on a stable organisation and a two-dimensional design in line with classical ones. From a predictable universe we evolved up to a measurable one, and today, faced with more complex understandings of the phenomena that define our environment, we live according to a differential understanding of the universe.[49] Gausa relates the randomness and tactical processing of information about a kind of quantum mechanics and theory of chaos with the need for understanding the dynamic and non-linear processes in the contemporary formation of space. Instead of position, the focus is on disposition, a tactical choice and combination of information that produces dynamic spatial solutions. How, then, to think about architecture today?

44
Hertzberger, "Time-based buildings," 82.
45
Ibid.
46
Leupen, "Towards time-based architecture," 12.
47
Gausa, "Dynamic time, informal order," 68–75.
48
Ibid, 68–69. Giedion published his book, *Space, Time and Architecture* in 1941, 36 years after Albert Einstein introduced the theory of relativity.
49
Gausa, "Dynamic time, informal order," 73.

NOVA ARHITEKTURA KAO BUDUĆA GRADITELJSKA BAŠTINA

Fraktura između zaštite graditeljske baštine i novoga urbanog razvoja od razdoblja nakon Drugoga svjetskog rata utjecala je na urbanističku izolaciju brojnih povijesnih jezgri od širega suvremenog grada.[52] Spomenici iz perioda prije modernizma u mnogo su slučajeva postali svojevrsni muzeji, forme zaustavljene u vremenu kao simboli i svjedoci povijesti prije negoli živa baština i na djelu je ponovno uspostavljanje njihove suptilnije interakcije s urbanim okruženjem i suvremenim životom.[53] Na tu se problematiku upravljanja baštinom nadovezuje velika količina arhitekture iz razdoblja modernizma. Zbog fragilnosti inovativnih tehnologija koje nisu bile uvijek temeljene na trajnosti, posebno u primjerima ranog modernizma, često se kao jedina mogućnost produljenja njihova životnog vijeka nameće faksimilska rekonstrukcija, što dodatno potencira pitanje autentičnosti, odnosno transmisije izvornog duha spomenika.[54] Tehničke inovacije u montažnom graditeljstvu prošlog stoljeća razvile su komponentu fizičkog održavanja, no često su rezultirale „neutralnim" rješenjima koja nisu relevantni nositelji oblikovnih ili identitetskih poruka koje bi vrijedilo prenijeti u budućnost, što naglašava neizostavnost kritičkog istraživanja i valorizacije graditeljske baštine.[55] Osim toga, spomenici modernizma često veoma brzo ostaju bez izvorne namjene, upravo zbog forme koja je bila oblikovana za vrlo specifičnu i kratkotrajnu funkciju, što poziva u prvi plan problem adaptabilnosti. No u biti svi spomenici graditeljske baštine dijele zajedničke temeljne probleme, a to su povezanost (nadživljene) funkcije i forme—kao redovito trajnijeg elementa u ovom međuodnosu, a zatim i metode održavanja i očuvanja same fizičke konstrukcije. Suočenje s tim činjenicama dodatno nas upućuje na razmišljanje o novoj arhitekturi kao o budućoj graditeljskoj baštini.

Aldo van Eyck kroz svoju je kritičku reakciju na dominaciju modernističkog funkcionalizma promatrao građevinu kao mnogo više od zbira funkcija i refleksije ljudskih proporcija na prostor. Smatrao je da bi arhitektura mogla reflektirati društvene procese i utjecati ne samo na pojedinca nego i na društvenu strukturu.[56] Tako kreiran prostor, koji višestruko angažira, nužno je polivalentan. No polivalentnost ponuđena krugu korisnika za kojeg je neka arhitektura mišljena nije dovoljna podrška za cjelokupan život objekta, jer može biti ograničavajuća za buduće korisnike. Međutim, kada se koncept polivalentnosti poveže s razmišljanjem o budućnosti arhitekture, kao što to čini Herman Hertzberger, tada se potencijalu kolektivne interpretacije arhitektonskih struktura pretpostavlja potencijal njihove individualne reinterpretacije, što predstavlja inspirativnu smjernicu budućeg projektiranja.[57] Smisao vremenski utemeljene arhitekture (engl. *time-based architecture*) Hertzberger vidi u projektiranju koje je više temeljno, a manje specifično, odnosno u razmišljanju o dugotrajnom prostoru, koji omogućuje kratkotrajne programe. On razlikuje „fleksibilnost" od „polivalentnosti". Dok fleksibilnost proizvodi neutralne kontejnere (a arhitektura ne bi nikada smjela biti neutralna), How to relate a static architecture to a dynamic system? One needs to accept that the programme is a temporary thing, of significantly shorter duration than form, and it is worth asking whether it is even possible to design projects that are created in today's fast flow of information using a classical floor plan. Hertzberger highlights the fact that in practice it is not true that only one function fits one form.[50] The floor plan of our era might lean towards demonstrating certain potentialities in order to satisfy various, and therefore unforeseen functions in shorter time-intervals—to enable the variability of space in time through its alternating coding and decoding. This is then a floor plan for an organisational system, like an interactive diagram; whose spatial character is based precisely on its openness to change.[51]

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Premda su modernističke intervencije prisutne na poslijeratnim ruševinama povijesnih jezgri europskih gradova, u širem urbanom kontekstu zone zaštite povijesnih jezgri učinile su ih izoliranim cjelinama. Ta je činjenica potaknula UNESCO-ov prijedlog za definiciju „povijesnoga urbanog krajolika" (engl. *historic urban landscape* – HUL). Riječ je o preporuci za pristup spomeničkoj baštini kao sastavnom elementu povijesnoga urbanog krajolika koji čini splet prirodnih i kulturnih, materijalnih i nematerijalnih, globalnih i lokalnih vrijednosti. Valorizacijom širokog prostora grada kao kulturne baštine povijesna gradska jezgra ili zaštićena spomenička zona ne percipira se više unutar strogo definiranih granica, nego kao posljedica širega urbanog, kulturnog i geografskog konteksta s kojim je nedjeljivo povezana. Bandarin, van Oers, *The Historic Urban Landscape.*
53
Bandarin, van Oers, *The Historic Urban Landscape;* Šverko, *Grad (ni)je kuća.*
54
Tostões, „Preface", xxiv-xxvi.
55
Ibid.
56
Winters, *Aesthetics and Architecture,* 69; Malone, *Architecture, Mentalities and Meaning,* 134–139.
57
Hertzberger, „Time-based buildings", 82. O adaptaciji postojećih formi s jedne i „prostornom otpadu" kao potencijalnom resursu za recikliranje s druge strane vidi: Šverko, *Grad* (*ni*)*je kuća,* 157–171.
58
Hertzberger, „Time-based buildings", 82; Hertzberger, *Transformation + Accommodation;* Hertzberger, *Lessons for Students in Architecture,* 100–101; Leupen, „Towards time-based architecture", 12–20.
59
Hertzberger, „Time-based buildings", 85; Leupen, „Towards time-based architecture", 19.
60
Hertzberger, *Lessons for Students in Architecture,* 92.

polivalentnost podrazumijeva projektiranje lucidne i perzistentne forme otvorene za interpretacije, poput antičkih amfiteatara u Arlesu i Lucci ili pak Dioklecijanove palače u Splitu, koje ističe kao primjere ekspresivnih formi koje su bile sposobne kroz vrijeme prihvaćati nove uloge i značenja.[58] Takva je „interpretabilna arhitektura" uvijek na neki način nezaključena, jer uz fiksni dio predviđa i onaj promjenjivi, što je čini djelomično trajnom (engl. *semi-permanent*).[59] Interpretativnu dimenziju kolektivnih datosti Hertzberger uspoređuje s dijalektikom između jezika, kao kolektivnog instrumenta, i govora kao njegove interpretacije.[60] U tom je smislu Budimirovljeva upotreba tradicionalnog tlocrta panonske kuće, kao prototipa podložnog individualnim interpretacijama, bliska Hertzbergerovu razmišljanju.

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Hertzberger, *Lessons for Students in Architecture,* 148.
51
An example of a project whose essence is impossible to express using a static floor plan is the Mini Art Cinema in Rijeka by D. Gamulin and A. Sevšek. The potentials for interactions with users is recorded only through a dynamic display of the space that at various times can have completely different meanings. See: *Mini Art Cinema, Rijeka, Croatia*.
52
Given that modernist interventions are present at the ruins of the historical centres of European cities, in the wider urban context, protected zones covering historical city centres turned them into isolated wholes. This fact led to UNESCO's proposal for the term Historic Urban Landscape (HUL). This is a recommended approach that sees monumental heritage as a key element in the historical urban landscape, created through a combination of values both natural and cultural, material and non-material, global and local. By valorising the wider space of the city as cultural heritage, the historical city centre or a protected monumental area is no longer perceived within a strict set of borders, but rather as a result of the wider urban, cultural, and geographic context with which it is inseparably linked. Bandarin, van Oers, *The Historic Urban Landscape*.
53
Bandarin, van Oers, *The Historic Urban Landscape;* Šverko, *Grad (ni)je kuća*.
54
Tostões, "Preface," xxiv-xxvi.
55
Ibid.
56
Winters, *Aestetics and Architecture,* 69; Malone, *Architecture, Mentalities and Meaning,* 134–139.
57
Hertzberger, "Time-based buildings," 82. On the adaptation of form on one side, and "spatial garbage" as a potential resource for recycling on the other, see: Šverko, *Grad (ni)je kuća,* 157–171.

THE NEW ARCHITECTURE AS OUR FUTURE ARCHITECTURAL HERITAGE

The break between the protection of architectural heritage and new urban development has, since the end of the Second World War, had an impact on the isolation of numerous historical city centres from the wider contemporary city.[52] Monuments from the pre-modernist period in many cases have become like museums, forms frozen in time as symbols and witnesses to history, rather than being thought of as living heritage, and it is important to once again encourage their subtle interactions with their urban surroundings and contemporary life.[53] A great deal of the architecture from the modernist period responds to the problematics of managing heritage. Due to the fragility of innovative technologies that were not always built to last, particularly in the case of early modernism, one option for prolonging their life that is frequently brought up is detailed reconstruction that focuses on replicating the original, which also prompts the question of authenticity, the transmission of the original spirit of the monument.[54] In the 20th century, technical innovations in the construction of prefabricated structures helped develop the notion of physical preservation, but frequently resulted in "neutral" solutions that were not relevant to those shape-or identity-based messages that would be worth communicating to future generations, which highlights the lack of critical research and respect for architectural heritage.[55] In addition, the monuments of modernism frequently end up being used for purposes other than those they were originally designed for, precisely because their form was shaped for a very specific and short-lasting function, which calls to our attention the issue of adaptability. In essence, however, all structures that form part of our architectural heritage share some basic issues, namely with the relationship between function and form—as the longer-lasting element in this relationship, in addition to the methods of preserving and caring for the physical constructs themselves. Discussing these ideas also directs us to think about the new architecture as our future architectural heritage.

Aldo van Eyck, in his critical reaction to the domination of modernist functionalism, considered buildings as more than just a range of functions, reflections of human beings in a space. He believed that architecture could reflect social processes, influencing not just the individual, but the whole social structure.[56] Such a space, which engages on a number of levels, is necessarily polyvalent. But a polyvalent building designed for a specific group of users is not in itself enough to support the whole life of the monument, because it can still limit future users. However, when the concept of polyvalence is related to discussions about the future of architecture, as Herman Hertzberger for instance does, then we can add, to the potential for a collective interpretation of architectural structures, the potential for their individual reinterpretation, which represents an inspiring direction for future designs.[57] The idea behind time-based architecture, for Hertzberger, is in a design

Zadatak arhitekture da izražava duh vremena, koji je Le Corbusier isticao, podrazumijeva, podsjetimo, da bi projektanti trebali prije svega razumjeti svoju epohu. Oni mogu birati koji će dio nevidljivog svijeta učiniti vidljivim radi zadovoljenja ljudskih potreba, ali i u kolikoj će mjeri pritom denaturalizirati prirodu. Naše doba među dosadašnje arhitektonske teme uvodi upravo naglašeni senzibilitet za ekološki odgovornije i mnogo manje antropocentrično materijalno povezivanje prirode i društva. „Kuća za dvoje" u tom je smislu poticajan model budućeg djelovanja u prostoru, gotovo simbolička slika projekta s otvorenim krajem, u kojemu devedesetogodišnji arhitekt sa suprugom kroz poetiku tehnologije živi s prirodom. Ta kuća u prisnom suživotu s ambijentom ne samo da maksimalno respektira svoje energetsko okruženje i zeleni svijet oko sebe nego i teritorijalnost životinjskog svijeta na velikoj parceli, bez sentimentalnog antropomorfizma.[61] Ona predviđa svoje fizičko trajanje—beton je testiran na stotinu godina, a drugi će elementi dotrajati svaki u svom ritmu, ne svi odjednom. Tlocrt je modularna struktura koju arhitekt i dalje projektira premda je useljena; podložna je promjeni, nezasićena. Pravilnim održavanjem ova kuća može na najljepši način zadovoljiti potrebe svojih korisnika te kao dio prostornog sustava koji nije mišljen da se podredi čovjeku, već teži njegovoj harmonizaciji s prirodom, dugo trajati.

Ideja *posthumanizma* (koja ima potencijal da, u težnji ka ravnoteži između antropocentrizma i ekocentrizma, organskog i anorganskog, stvarnog i virtualnog, uspostavi zapravo viši oblik humanizma) poziva na projektiranje koje nadilazi ustaljene obrasce i na postupno rekonceptualiziranje uloge arhitekata, kako bi pažljivije harmonizirali i povijesnu i novu arhitekturu s kontekstom prirodnih i urbanih krajolika.[62] Prirodni krajolik čini složeni ekosustav u kojemu je čovjek najodgovorniji sužitelj, dok su urbani postojeće forme, a među njima i brojni spomenici. Uputno je da nove kreacije stupaju s njima u suptilni dijalog, adaptiraju ih koliko je to nužno i tako pomažu njihovoj regeneraciji. Da bi nova arhitektura mogla živjeti za generacije korisnika, potrebna nezaključenost, mogućnost međusobne prilagodbe funkcije i forme, odnosno prostorne i vremenske dimenzije novim informacijama, trebala bi, jednako kao i ekološka potka, biti upisana u njezinoj biti, a to znači postati jedna od ideja vodilja od početka procesa projektiranja. Razmišljanja o „kući" kao budućem „spomeniku" mogla bi stoga postupno ujediniti ta dva koncepta i pomoći u stvaranju arhitektonskih djela koja teže životu neopterećenom prolaskom vremena, odnosno u dugom i kontinuiranom suživotu s njim.

process that is more basic, less specific: in lasting spaces that allow for shorter-lived designs. He draws a distinction between "flexibility" and "polyvalence." While flexibility creates neutral containers (and architecture should never be neutral), polyvalence presupposes the designing of a lucid and persistent form open to interpretation, such as the ancient amphitheatres in Arles and Lucca, or Diocletian's Palace in Split, which stands out as an example of an expressive form that was able, over the course of time, to take on new roles and meanings.[58] This kind of "interpretable architecture" is always in some way unfinished, because alongside its fixed part there is its changeable aspect that to some extent makes it semi-permanent.[59] Hertzberger compares the interpretative dimension of collective reality to the dialectics between languages as collective instruments, and speech as their interpretation.[60] In this sense, Budimirov's use of the traditional floor plan of a Pannonian house as a prototype underlying his individual interpretations is close to Hertzberger's understanding of the idea.

It is worth emphasising that the task of architecture —to express the spirit of an age, an idea that Le Corbusier highlighted—presupposes that designers would need above all else to understand the era in which they are living. They can choose which part of the unseen world they will make visible in order to meet human needs, but also to what extent this will denaturalise nature. Our own era has introduced a strong awareness for a more ecologically responsible and less anthropocentric physical linking of nature and society. The "House for Two" is thus an encouraging model for future activity in space, an almost symbolic image of an open-ended project, in which a 90-year-old architect and his wife, through the poetics of technology, live with nature. This house, intimately coexisting with its surroundings, not only respects its energic environment and the green world around it, but also the animal life that thrives on the large plot of land on which the house is situated, without sentimental anthropomorphising.[61] It predicts its own physical survival—the concrete can last a hundred years, and the other elements will wear out at their own pace, not all at once. The floor plan is a modular structure that the architect continues to work on even though the house itself has been moved into; it is subject to change, inconclusive. If it is well looked-after, this house can in the most pleasant way possible meet the needs of its users; meeting those needs by creating a spatial system that is not intended to be inferior to human beings, but rather aims for a long-lasting harmony with nature.

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Ibid, 3–36; Haraway, *The Companion Species Manifesto*.
62
Soper, „The Humanism in Posthumanism", 365–378.
Na čitanju ovog teksta i dragocjenim komentarima, kao i na kontinuiranim razgovorima o teoriji i praksi projektiranja zahvaljujem teoretičarki arhitekture profesorici Karin Šerman, arhitektici Vanji Ilić i dizajneru Damiru Gamulinu.

The notion of posthumanism (which has the potential to, in the search for a balance between anthropocentrism and ecocentrism, the organic and inorganic, the real and the virtual, establish a higher form of humanism) encourages architectural designs that go beyond the established patterns, and through a gradual reconceptualization of the role of the architect, more carefully harmonise historical and contemporary architecture with both natural and urban landscapes.[62] The natural landscape is made up of an ordered ecosystem in which man is the caretaker with the most responsibility, while the urban is made up of existing forms, and among them numerous monuments. It is appropriate for new creations to enter into a subtle dialogue with them, adapt them as much as is necessary, and in so doing prompt their regeneration. If the new architecture is to survive generations of users, its inconclusiveness—the possibility of adapting both function and form, both the spatial and temporal dimensions—needs to be recorded in its very core, just as it is interwoven with the ecological aspect. This means that inconclusiveness needs to become one of the guiding principles from the very beginning of the design process. Thinking of the "house" as a future "monument" could thus, by degrees, unite these two concepts and prompt the creation of architectural works that look to a life unimpeded by the passing of time, or rather, to a long and continuous coexistence with it.

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Hertzberger, "Time-based buildings," 82; Hertzberger, *Transformation + Accommodation;* Hertzberger, *Lessons for Students in Architecture,* 100–101; Leupen, "Towards time-based architecture," 12–20.
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Hertzberger, "Time-based buildings," 85; Leupen, "Towards time-based architecture," 19.
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Hertzberger, *Lessons for Students in Architecture,* 92.
61
Ibid, 3–36. Haraway, *The Companion Species Manifesto.*
62
Soper, "The Humanism in Posthumanism," 365–378. I would like to thank the architectural theory professor Karin Šerman, the architect Vanja Ilić and the designer Damir Gamulin for reading this text and for their valuable comments, as well as the ongoing conversations about the theory and practice of architecture.

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